Influenza-Associated Pediatric Mortality Reporting Instructions

This document is to guide state and local health department staff in completing the case report form and the use of the CDC Pediatric Influenza-Associated Death Reporting System found on the Secure Data Network (SDN). In order to report cases within this system, each person who will be entering data from the state or local health department will need a digital certificate. To obtain a digital certificate, contact CDC SDN support at (800) 532-9929 (option 1).

I. STATE USE ONLY Section (case report form only)

This section at the top of the form should be used by your state health office to record personal identifiers such as name and address of patient. Do not send this information to the Centers for Disease Control and Prevention (CDC). The web-based reporting system will not have data entry fields for this information.

II. Patient Demographics

1. State – state of residence of patient
    i. States are responsible for reporting their residents, regardless of the location of death. If a patient dies outside their state of residence, the state where the death occurs should make arrangements to transfer any data regarding the case to the patient's state of residence, who should then report the case to CDC. This is a required field in the reporting system and is automatically populated in the web-based report.
2. County – county of residence of patient
3. State ID – the state assigned unique identifier (required field).
4. CDC ID – the CDC case ID automatically assigned by the web-based reporting system.
5. Age – The age of the patient at the time of death. Age may be entered as days, months, or years. All cases should be <18 years old.
6. Date of birth – can be used to search for cases in the web-based reporting system.
7. Sex
8. Ethnicity
9. Race

III. Death Information

10. Date of illness onset – earliest date of symptom onset associated with influenza illness (required field).
11. Date of death – (required field).

12a. Autopsy performed?

12b. Pathology specimens sent to CDC?

13a. Cardiac/respiratory arrest occur outside the hospital?

13b. Location of death – select the answer that best describes the last location where a pulse was present. If other, please specify location in text field.

IV. Influenza Testing

The purpose of the influenza testing section is to collect diagnostic information. Multiple testing methods may be recorded, and negative results as well as positive results can be entered. All reported cases are required to have at least one positive diagnostic test for influenza along with a corresponding specimen collection date. Result values are specific

to the test type that is listed. The web-based reporting system will require a specimen collection date for every test type entered.

Commercial rapid diagnostic test – any commercially available rapid test by any manufacturer. This will include tests that may and may not differentiate influenza A from B.

Viral culture – any test results obtained from inoculating cell culture with a specimen obtained from the patient. Specimens can include nasal/pharyngeal swab, etc.

Immunofluorescent antibody (DFA) or (IFA) – staining of cells from patient specimen. Specific for influenza virus type A or B.

Enzyme immunoassay (EIA) – often, but not always, synonymous with rapid antigen testing

RT-PCR – any test results obtained by amplifying the genetic material obtained from a patient specimen. Specimens can include nasal/pharyngeal swab, etc.

Immunohistochemistry (IHC) - this method is performed in a limited number of laboratories, and involves immunohistochemical staining to detect influenza viral antigens in tissue specimens. Tracheal and bronchial airway tissues provide the highest yield. States may request CDC to perform this testing in questionable cases.

V. Culture confirmation of INVASIVE bacterial pathogens

14a. Was a specimen collected for bacterial culture from a normally sterile site (e.g. blood, cerebrospinal fluid [CSF], tissue, or pleural fluid)?

The purpose of this question is to collect data on bacterial infections that may have been complicating factors of the influenza illness and potentially led to death. It is important to include information about bacterial organisms that were cultured from normally sterile sites.

14b. If yes, please indicate the specific site and date from which the specimen was obtained as well as the bacterial culture result

14c. If positive, the organism cultured

i. Select any of the species listed or select other and indicate the species isolated

ii. If *Neisseria meningitidis* is isolated, indicate serogroup, if known

VI. Culture confirmation of bacterial pathogens from NON-STERILE SITES

14d. Were other respiratory specimens collected for bacterial cultures (e.g. sputum, ET tube aspirate)?

14e. If yes, please indicate the specific site and date from which the specimen was obtained as well as the bacterial culture result

14f. If positive, the organism cultured

i. Select any of the species listed or select other and indicate the species isolated

ii. If *Neisseria meningitidis* is isolated, indicate serogroup, if known

VII. Medical Care

15. Did the patient receive medical care for this illness before admission to the hospital or death if outside the hospital?
16. If YES, indicate level(s) of care received (check all that apply):
    i. An Urgent Care visit should be classified as outpatient.
17. Did the patient require mechanical ventilation?
    i. Do not include cases in which the patient experienced cardio-respiratory arrest and was intubated during an unsuccessful resuscitative effort.

VIII. Clinical Diagnoses and Complications

18a. Did complications occur during the acute illness?
18b. If yes, check all complications that occurred during the acute illness.
    i. Complications are usually stated on the hospital discharge summary or in the general hospital chart. Additionally, hospital physicians may be able to provide information regarding a patient's hospital course.

Acute Respiratory Disease Syndrome (ARDS)
Another viral co-infection – specify diagnosis if available.
Bronchiolitis
Croup
Encephalopathy/encephalitis
Pneumonia (Chest X-Ray confirmed)
Reye syndrome
Seizures
Sepsis
Shock
Other – Use this selection if there is a complication that occurred during the acute illness that is not available for selection

19a. Did the child have any medical conditions that existed before the state of acute illness?
19b. If yes, check all medical conditions that existed before the start of the acute illness:
    i. Previous medical conditions are often listed on the hospital admission note or in the general hospital chart. Additionally, hospital physicians may be able to provide information regarding a patient's previous medical conditions.

Asthma/reactive airway disease
Cardiac disease (specify)
Chronic pulmonary disease (specify) – specify any underlying chronic pulmonary disease that existed before the acute illness, other than asthma.
Cystic fibrosis
Diabetes mellitus
Hemoglobinopathy (e.g. sickle cell disease) – does not include sickle cell trait
History of febrile seizures
Immunosuppressive condition (specify) - includes HIV infection, immunosuppressive therapy
Metabolic disorder (specify) - includes endocrine disorders
Moderate to severe developmental delay
Neuromuscular disorder (including cerebral palsy, specify)
Pregnant (specify gestational age in weeks)

Renal disease (specify)
Seizure disorder - includes disorders other than febrile seizures
Skin or soft tissue infection
Other – Use this selection if there is an underlying condition that is not available for selection.

IX. Medication and Therapy History

20a. Was the patient receiving any of the following therapies in the 7 days prior to illness onset or after illness onset? (check all that apply)

Aspirin or aspirin-containing products
NSAID or NSAID-containing products

20b. Was the patient receiving any of the following therapies prior to illness onset? (check all that apply)

Antibiotic therapy
Antiviral therapy (specifiy)
Chemotherapy or radiation therapy
Steroids by mouth or injection
Other immunosuppressive therapy (specify)

X. Influenza vaccine history

21. Did the patient receive any influenza vaccine during the current season (before illness)?
22. If YES, please specify the type of influenza vaccine received before illness onset:
    i. Select either the trivalent inactivated vaccine (injected) or live attenuated vaccine (nasal spray).
23. If YES, how many doses did the patient receive and what was the timing of each dose? (Enter dates of vaccination if available)
    i. Children receive either one or two doses of influenza vaccine depending on their age. If the child received only 1 dose, then select 1 dose ONLY. If the child received two doses, select 2 doses. Only one of these two selections can be made in the web-based reporting system.
    ii. For each selection indicate if the last dose was given more than or equal to 14 days, or less than 14 days, before the patient reported symptoms.
24. Did the patient receive any influenza vaccine in previous seasons?
    i. Refers to any season in the past

XI. Submitting Information

The person submitting the form, their contact phone number, email, and date submitted will be automatically populated in the web-based reporting system with the information corresponding to the person entering the information. The date submitted will be considered the date reported by the web-based system.